

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1-55. (canceled)

56. (new) An article comprising particles, a substrate and an organic film, wherein the particles are fixed on the substrate via the organic film, a structure described below is defined by the substrate, the organic film and the particle:

particle-X1-R1-Y-R2-X2-substrate

where X1 and X2 are -O-Si- or -S-,

R1 and R2 are the same or different and each is alkyl having 1 to 30 carbon atoms,

R1-Y-R2 is at least one selected from the group consisting of:

R1-CO-R2;

R1-OSi-R2;

R1-SiOR2;

R1- $\phi$ -NH-R2;

R1-NH- $\phi$ -R2

R1- $\phi$ -CH<sub>2</sub>- $\phi$ -R2;

R1-CH=N-R2;

R1-N=CH-R2;

R1- $\phi$ -R2;

R1- $\phi$ -CO-R2;

R1-CO- $\phi$ -R2;

R1- $\phi$ -CH<sub>2</sub>- $\phi$ -(-CHO)-R2;

R1- $\phi$ -(-CHO)-CH<sub>2</sub>- $\phi$ -R2;

R1-NH-CO-NH-R2;

R1-CO-NH-O-R2;

R1-O-NH-CO-R2;

R1-CHOH-CH<sub>2</sub>-NH-R2;

R1-NH-CH<sub>2</sub>-CHOH-R2;

R1-CO-O-R2;  
R1-O-CO-R2;  
R1-NH-CO-R2; and  
R1-CO-NH-R2,

where  $\phi$  is a benzene ring.

57. (new) The article according to claim 56, wherein the particles are aligned as a single layer of an assembly film.

58. (new) The article according to claim 56, wherein the particles are aligned in a form of accumulated layers, and the particles are bonded to each other and immobilized.

59. (new) The article according to claim 56, wherein an average diameter of the particles is in a range from 0.5 nm or more to 50 nm or less.

60. (new) The article according to claim 56, wherein the particles are patterned and aligned on a surface of the substrate.

61. (new) The article according to claim 56, wherein the particles are aligned in a concave portion of a concave and convex pattern formed on a surface of the substrate.

62. (new) The article according to claim 61, wherein a width of the concave portion is not less than five times and not more than 30 times an average diameter of the particles.

63. (new) The article according to claim 56, wherein the particles are at least one selected from the group consisting of metal, metal oxide, semiconductor, amphoteric element, amphoteric element oxide, and resin.

64. (new) The article according to claim 56, wherein the particles are magnetic particles.

65. (new) The article according to claim 56, wherein

the substrate is formed of at least one material selected from the group consisting of metal, metal oxide, semiconductor, amphoteric element, amphoteric element oxide, and resin.

66. (new) A semiconductor device having a barrier layer serving as a tunnel barrier layer provided on a semiconductor substrate and comprising the article of claim 56, wherein the particles are immobilized and aligned on the barrier layer, and the semiconductor device comprises an electrically insulating layer provided on the barrier layer and the fine particle layer.

67. (currently amended) A semiconductor memory device having an insulating gate semiconductor (MIS) type transistor structure comprising a barrier layer serving as a tunnel barrier layer between a gate insulating film of the MIS type transistor structure and a semiconductor substrate, the barrier layer provided on the semiconductor substrate, and comprising the article of claim 56, wherein the particles are immobilized and aligned on the substrate.